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Effects of Rack-cutter Parabolic Modification on Loaded Contact Characteristics for Crossed Beveloid Gears with Misalignments

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Highlights

- The mathematic model of rack-cutter with parabolic modification is developed.
- The tooth surface equation of beveloid gear with parabolic modification is derived.
- The loaded mesh model with misalignments of crossed beveloid gear transmission is developed.
- The effects of parabolic modification on contact characteristics of crossed beveloid gear pair under different load are analyzed.
- The effects of parabolic modification on contact characteristics of crossed beveloid gear pair with misalignments are investigated.

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